

# Polynomials

Definition: A TERM is a constant, a variable or the product of a constant and one or more variables.

ex) 5 ; x ; 7x &  $3xy^2z^3$  are each a single term

Definition: A POLYNOMIAL is a finite sum of terms.

## Classifying Polynomials by Number of Terms

**Monomial:** 1 term polynomial ex)  $8x$

**Binomial:** 2 term polynomial ex)  $3x - 4$

**Trinomial:** 3 term polynomial ex)  $4x^2 + 5x - 2$

Definition: The DEGREE of a polynomial (in only 1 variable) is the highest power to which the variable is raised.

## Classifying Polynomials by Degree

	<u>Polynomial</u>	<u>Degree</u>	<u>Special Name</u>
ex)	$3x + 5$	1	Linear
ex)	$-7x^2 + 4x - 1$	2	Quadratic
ex)	$x^3 - 8$	3	Cubic
ex)	$x^2 + 3x^4 + x - x^3 - 2$	4	
ex)	63	0	Constant
ex)	0	Undefined	Zero